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BY
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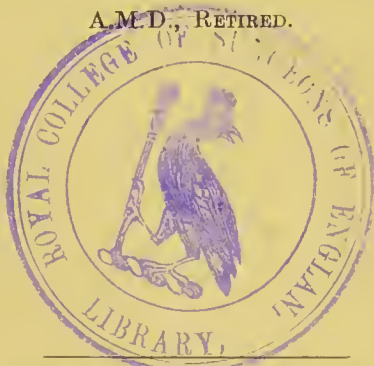
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GOÎTRE IN THE HIMALAYAS.

BY

BRIGADE-SURGEON WILLIAM CURRAN,

A.M.D., RETIRED.



"Information relative to the cause and origin of endemic maladies is also much required. Why, for instance, Europeans suffer so much from bowel complaints on the Coast of China and not on the West Coast of Africa; why the dracunculus should be met with on the West Coast of Africa, and the chigoe in the West Indies, we are unable to explain."—*The Admiralty Manual of Scientific Inquiry, &c.*

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GOÏTRE IN THE HIMALAYAS.

Reprinted from the Dublin Journal of Medical Science—March, 1886

THE existence of goître on the higher table-lands of Central Asia was first made known to us by Marco Polo. Describing the "Province of Yarcán," he says that "a large proportion (of its inhabitants) have swollen legs *and great crops at the throat*, which arises from some quality in their drinking water." Mir Izzat Ullah and Mr. Shaw confirm this; and he and other members of the expeditions that accompanied or followed him were overwhelmed with applications for remedies containing iodine by sufferers from this disorder. Mr. Schuyler adds, that goître also prevails in Khokand and Kashgar;^a and we learn from Dr. Hooker that it is very common "amongst the Tibetans, Bhotanese, and other inhabitants of the Nepal Terai." A diffusion so wide suggests a glance at its surroundings, and these may help to throw some light on its genesis and history.

Of its existence, and that, too, on a very large scale, within our own Himalayan territories there can be no doubt. The most careless or casual visitor to our hill stations must have seen scores of such cases; but it is certainly more common in some parts than in others, though why this should be so is not always apparent. It occurs at all ages and in almost equal proportions between Hindus and Mahometans, men and women, thus showing that its cause, whatever that may be, is no respecter of persons. It is rarely prominent, however, in either sex before the age of puberty, and its growth thereafterward is slow and painless. It is nowhere regarded,

^a As this gentleman's testimony is very pertinent to our issue, I reproduce it here in full and will then leave it to speak for itself. Describing the city of Khokand, he says (Turkestan, Vol. II., page 15) that, "I was greatly struck with the prevalence of goître, and it seemed to me as if every third merchant was afflicted with this disagreeable malady. Whether it has anything to do with the use of snow-water I cannot say, but the streams flowing through the city are formed by the melting of distant glaciers, and this was the only town in which I noticed this disease. I am told, however, that it is very prevalent in Kashgar and Yarkand."

so far as we could ascertain, as either a disqualification for matrimony or even a deformity. Anyhow, the subjects of it whom we examined appeared to make light of it, and they rarely, we believe, seek relief from it at the hands of either their own or European doctors.

Of its prevalence nearer home we are equally certain, though one would look in vain through Yorkshire, Derbyshire, or the valleys of Wales for anything like the "crops" here referred to; and it is frequently associated with cretinism in Italy and the Tyrol. The city of Aosta may, indeed, be regarded as its head-quarters; and it is in the valley that bears its name that, to use the words of Mr. Whymper, "these distorted mindless beings, more like brutes than men," called cretins, "most do congregate." Nothing of this, however, occurs in the Himalayas; on the contrary, their denizens are a hardy, well-developed race; and as to cretinism, pure and simple, it is conspicuous by its absence. Idiocy, however, is rather common in the interior of these hills; and one meets occasionally, in the remoter valleys, with a class of creatures who, for want of a better or more scientific designation, might be called "born fools." But the Himalayas are by no means peculiar in this respect, for there are, unhappily, examples in large numbers of that description of persons elsewhere, and it would be well for society and themselves that they were equally harmless.

Why this peculiar swelling or hypertrophy should manifest itself exclusively in this particular organ is not known; neither, indeed, is the function of this so-called *thyroid body* clearly understood.^a All we can say about it is that it is a soft, reddish, and highly-vascular structure, which forms a rounded projection on either side of the windpipe and larynx, and appears to protect these and also the great vessels of the neck as they emerge from the chest. But other swellings and diseases, such as cancer, tubercle, &c., are equally exclusive in their seizures; and, as in the one instance so in the other, glandular enlargements or degenerations are everywhere the heritage of poverty and want. Nor is this heritage confined to man—it is shared in also by his "fellow-mortals," the dog and other domestic animals; and it is often amusing to watch these creatures sluggishly moving about with

^a The recent experiments of Mr. Victor Horsley, of the Brown Institute, would seem to imply or establish an importance in the economy for this gland which was hitherto denied it. But the details are too technical for reproduction here, and the writer is only concerned with the popular side of the question.

“great crops at their throats,” such as the famous Venetian traveller noticed elsewhere long ago.

Various causes have been assigned for its causation, such as locality, heredity, a poor monotonous vegetable diet, close stuffy valleys, and the habitual use of snow-water, or of water largely impregnated with lime. This latter is the cause to which the people themselves chiefly ascribe it, so that we need not discuss the others in any detail here. And as to the use of snow-water, goître prevails in countries, such as Sumatra and South America, in which this water is scarcely ever seen, while it is almost unknown in Greenland and Lapland, where no other is at times available. Though willing enough to exhibit their crops to the curious traveller, the inhabitants of these hills rarely apply for treatment at his hands; and the only remedy they resort to is the old familiar moxa or tinder, which they burn over the tumour, and through which they sometimes succeed in diminishing its bulk, though they do not thereby entirely remove the deformity or subdue the disease.

As this moxa is regarded everywhere in the East, but especially so in the regions here referred to, as a panacea for all the ills that flesh is heir to, including amongst them this deformity, a few words on its mode of application and uses will not, we believe, be regarded as irrelevant or out of place here. It has been employed from time immemorial in these hills for pains of every description, and the people resort to it with a faith which no failure can chill and no discouragement or remonstrance can restrain. Infants but a few days old, if they appear to be in any way uneasy, are at once severely cauterised over their stomachs, and no bad effects are found to follow from this offhanded procedure. Veterans on the verge of the grave are similarly dealt with, and both appear to thrive under the infliction. The general way of applying it is to rub the part with a handful of cold wood-ashes and then strike it repeatedly with a piece of red-hot iron like Fig. 1. This produces dots or depressions like those indicated in Fig. 2, but the marks that are left by these repeated blows are, at least, twice as large as those given; and when this appliance is not at hand, another and even more painful method is resorted to. This is nothing more or less than putting a piece of lighted tinder on the part and allowing this to consume itself away. Though these remedies are certainly severe, no attempt is made to modify or evade them, and the eagerness with which they are resorted to on all domestic occasions would seem to imply that they are found effectual.

Fig. 1.



Fig. 2.

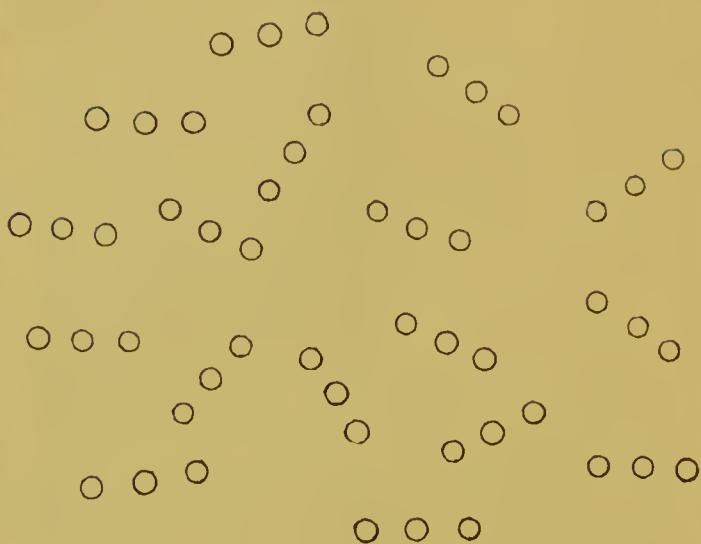
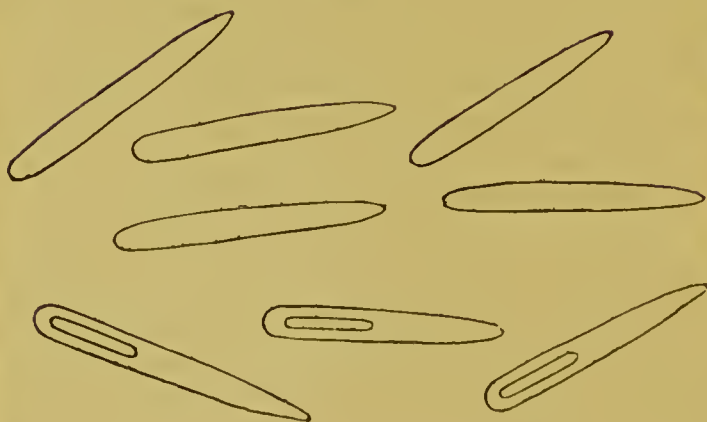


Fig. 3.



Fig. 4.



The Puhari doctors are of course wise enough to know that the rough method used some days or hours previously on the father in the fields would be quite unsuited for his infant offspring in the cradle. They discard accordingly the primitive-looking implement referred to above, and substitute instead of it an eyed, seton-like piece of metal, such as is sketched at Fig. 3. With this they produce some such blots or blotches as are represented in Fig 4, and it is no uncommon thing to see infants or children streaked in this way in this region literally "from the soles of their feet to the crowns of their heads." Nor is this procedure peculiar to this quarter. It is known or practised, in one form or another, over all the hilly ranges of the world. Its application is as common in Central Africa as it is in Central America, in Arabia as it is in Orissa, among the Philippine and Pacific islanders as among the wild tribes of the Rocky Mountains or the wilder inhabitants of the coast of Labrador. It has been used with benefit, so the patients acknowledged, in such widely different diseases as cholera and snake-bite, inflammatory fever and guinea-worm, and we ought not therefore be surprised at hearing that it has frequently dispersed a voluminous goître. But the therapy of this swelling was not included in our original conception of the scope of this essay, and so we need not encumber these pages with any further reference to this feature of our case.

The fact mentioned by Dr. Livingstone, that drinking the water of Tanganyika proved a perfect cure in a few days to many of the goïtrous slaves whom he met in that neighbourhood, seems to imply that peculiarities of the soil or water supply of the district whence they came had something to say to it. The natives of the Himalayas are so convinced of this that they often change their abodes, but they cannot so easily change the hereditary predisposition their progenitors impressed upon them, and their food remains, unfortunately, always the same. This consists, in ninety-nine cases out of every hundred, of one or two small varieties of grain, which they call *Moorheea*, and which is simply a mixture of *Penicillaria spicata* and *Holcus sorghum*—in other words, of the bulrush millet and great millet. This is made up into a mess with some green vegetable, or seasoned with red pepper, and fried on a pan like the Scotch cake; and if we throw in a little milk and clarified butter, when these can be obtained, we have before us, in all its monotony, the cuisine of the Puhari, or hillman of the Himalayas.

Whether the vicious habit of breeding in-and-in, which is so common in these hills, has any influence on its production, and, if so, how much, we cannot say. These primitive people do not understand such questions, or, if they do, they are unwilling to speak about them; and it should never be forgotten in this connection, that goîtres are not regarded as a blemish in these hills, or a disqualification for any of the courtesies or amenities of social life. "In France, Italy, and Switzerland, it is a positive advantage," says Mr. Whymper, "to be goïtred, as it secures exemption from military service; and it is," he adds, "an unquestionable fact that the perpetuation of the great goïtrous family is assisted by this very circumstance." This is putting a price on deformity with a vengeance. But such is really the case—a goître is worth so much in hard cash in those regions in which the conscription obtains; and, describing a similar state of things in the Tyrol, the authoress of "*German Home Life*" adds, that "the fact of the goïtrous marrying the goïtrous, gazing upon the goïtrous, and living in a goïtrous atmosphere from time immemorial, has more to do with the production of this hideous throat disease than the presence of dolomite rocks, snow-water, or the other remote causes assigned for it by science."

The unavoidable suppression—on account of the costliness of their reproduction as illustrations—of the five photographs with which this paper was accompanied, and some of which were obtained with difficulty in the interior, imposes on me the necessity of saying something about them as well as about the subject with which this essay is chiefly concerned.

Two of the photographs were taken in Kumaon, near Nynee Tal, and the remainder were secured at Mussoorie or in the adjacent hills. They represent two brothers, who were either coolies, cultivators, or shikaris as opportunity offered or occasion required; and two of the others represent a mother and daughter, who were charcoal-burners in the Teree Rajah's territory, near this latter station. The fifth was an imbecile old Hindu who lived on his son's bounty—and all are typical illustrations of the condition they are intended to portray. The former were healthy, vigorous, young men, of the middle height, who carried my cot, tent, &c., without a murmur over passes which I could scarcely get through with difficulty, and both laughed heartily at an avowed apprehension of mine that this deformity might interfere with their prospects in the matrimonial market. They assured me that they could get as many wives as

they could maintain, and this excrescence did not "bar," they said, their or their neighbours' prospects in this or any other walk. A very similar feeling pervaded the other sections of this community I came across, and the Horatian maxim "Nil admirari" would form an appropriate motto for any or such symbol, device, or standard as the future ruler of their territory may set up.

Touching the old Hindu and his hebetude, I noticed several others in a similar condition, and there can, I think, be no doubt but that, though this condition produces no appreciable ill effects on the health of its owners in early life, it does so unmistakably as old age approaches, and I saw one or more illustrations of this at Gangoutree, near the source of the sacred Ganges. The old women who have been born with enlarged thyroids would pass without any preparation for Macbeth's witches; more hideous hags are not to be found on the surface of this gnarled globe. They all sternly refused my polite request for a "sitting," but I could easily see that they were not comfortable, and I should opine that these hard and stony masses would ultimately interfere with, if they did not actually arrest, the functions of the trachea and the œsophagus, but I had no proof of this. Many, indeed, had already attained to extreme age, and I saw only one case in which this petrified mass had so far encroached on the chest as to *appear* to be eating away the clavicle and sternum. That it must also interfere in time with the nutrition of the brain by obstructing the flow of blood to it from the heart can scarcely be doubted, and this would be my explanation of the mental incapacity or decay that is so often noticed in connection with this condition in advanced life.

As regards the ætiology of the complaint I have not much to say. Most of those I conversed with assured me that they were born with it. "Cub se shuru hua?"—"When did it begin?"—I used to say to them, and their almost invariable answer to this interrogatory was "Paida hua, sahib," or shorter, "Paidaish se, sahib"—"From my birth, sir;" and there is no doubt in my mind but that heredity plays a large part in its propagation and genesis. So do, I am convinced, breeding in-and-in, and the defects (nutritional or otherwise) engendered by these are enhanced by their poor surroundings and the poorer monotonous vegetable dietary already referred to. Millet constitutes, as I said before, the basis of their food, and though this may be of kin with that *Revalenta Arabica* of which we hear so much, it only consists,

according to the late Dr. Edward Smith ("Foods," p. 162) in a 100 parts—of water, 13; nitrogenous, 13; carbonaceous, 74; fat, 2·6; and salts, 2·3. Johnstone, or rather his editor, Church, describes ("The Chemistry of Common Life," p. 222) a beer that is made out of this seed by fermentation by the Kaffirs as "a sort of spirituous gruel of a very fattening quality" but these poor people are not fat—quite the contrary—and they know nothing of "fermentation."

Their beverage is "pure element" from the neighbouring brook or rill, and though this often comes from a distant glacier, or is even largely impregnated with lime, I do not think that it has much to do with the diffusion or genesis of this disorder. I say this, however, guardedly, and in face of the fact that many of the sufferers from it are otherwise minded, so indeed are many medical men, and some of the facts already disclosed within would seem to point in the same direction. But other facts are equally cogent in the other way, and there can be no doubt as to the purity of the source or the quality of the supply with which these poor people are so abundantly, and withal so gratuitously, provided.^a We must therefore, I think, look elsewhere than to this substance for a key to the interpretation of the phenomena that precede or accompany this disease, and this key will, I think, be best found in an exhaustive analysis or judicious combination of the other cases enumerated above.

^a The weight-on-head-carrying theory I purposely exclude from this list, for that best of all reasons that I do not believe in it, for though this mode of conveyance is very common in these hills, infants at the least cannot be turned to account in this direction; and I fancy that were we all to take to walking on our heads instead of as now on our feet, we should not even then become affected in this way without the aid of the other accessories mentioned within.

